

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (currently mended) A method of delivering blanks to a module, the method comprising:
dispensing a plurality of blanks onto a first conveyor traveling at a first velocity;
detecting the position of one of said plurality of blanks;
accelerating the first conveyor, with said plurality of blanks thereon, to substantially match a second velocity of a second conveyor when said one blank is at a preselected position;
transferring at least a portion of said one of said blanks from the first conveyor to the second conveyor; and
reducing the velocity of the first conveyor to the first velocity after a predetermined period of time.
2. (original) The method of claim 1, wherein the blanks are dispensed onto the first conveyor in an end-to-end relationship.
3. (currently amended) The method of claim 1, including repeating said detecting accelerating, transferring and reducing steps for the blank adjacent to said one blank.
4. (cancelled)
5. (currently amended) The method of claim [4] 1, wherein said detecting step includes detecting the leading edge of said one blank.
6. (currently amended) The method of claim [4] 1, including maintaining said first conveyor substantially at said second velocity between said accelerating and reducing steps. ~~for a predetermined time period and reducing the velocity of said first conveyor after the predetermined time period.~~

7. (currently amended) The method of claim 6 1 wherein said detecting step includes detecting by a photodetector.
8. (currently amended) The method of claim 1, wherein said second conveyor includes an upper belt, a lower belt and a nip point at the entry between said upper and lower belts and wherein transferring the blank includes passing the blank into a said nip point, of the second conveyor, wherein whereby the second conveyor maintains control of the blank after the first conveyor is reduced in velocity.
9. (currently amended) A method of ~~providing~~ transferring blanks ~~into a modular folder/gluer having a plurality of modules interconnected by in~~ a conveyance mechanisms, the method comprising:
- dispensing a plurality of blanks from a feeder into a first conveyor, the blanks being dispensed into the first conveyor adjacent to one another in the direction of the travel of said first conveyor;
 - advancing the plurality of blanks by said first conveyor toward a second conveyor at a first velocity, said second conveyor traveling at a second velocity greater than said first velocity;
 - detecting the position of a given blank in said first conveyor as said given blank approaches said second conveyor;
 - accelerating the first conveyor from the first velocity to substantially match the second velocity in response to detecting the position of said given blank;
 - transferring said given blank from the first conveyor to the second conveyor after said accelerating step; and
 - decelerating the first conveyor to the first velocity after a predetermined period of time so that said given blank and a subsequent blank on said first conveyor immediately adjacent to said given blank travel at different velocities after said transferring step.
10. (original) The method of claim 9, wherein decelerating the first conveyor occurs when a predetermined period of time has elapsed after said accelerating step.

11. (original) The method of claim 10, including calculating the predetermined period of time with a controller.
12. (original) The method of claim 11, wherein the calculating step is based on a length of said given blank, the first velocity and the second velocity.
13. (original) The method of claim 11, further comprising:
 - entering a blank length into the controller;
 - entering the first velocity into the controller; and
 - entering the second velocity into the controller, wherein the controller utilizes the blank length, the first velocity and the second velocity to calculate the predetermined period of time.
14. (original) The method of claim 13, wherein the controller automatically reduces the first velocity if the controller determines that the first conveyor is incapable of accelerating and decelerating within one blank length.
15. (original) The method of claim 9 wherein said second conveyor includes upper and lower belt members and a nip and the transferring step occurs by conveying said given blank into said nip.
16. (currently amended) An apparatus for transferring blanks in a conveyance mechanism ~~folding and gluing blanks into boxes~~ comprising:
 - a feeder hopper capable of receiving a plurality of substantially identical blanks and sequentially dispensing the blanks;
 - a feeder conveyor operably coupled with the feeder hopper and capable of receiving a plurality of the blanks dispensed from the feeder hopper in an end-to-end adjacent relationship, the feeder conveyor operable at a first velocity and second velocity;
 - a servo motor operably coupled with the feeder conveyor to drive the feeder conveyor;

a carrier conveyor positioned proximate the feeder conveyor and having a nip point, the nip point located so that blanks may be fed from the feeder conveyor into the nip point and received by the carrier conveyor;

a blank detector positioned to detect the position of a given blank of a plurality of blanks on said feeder conveyor as said given blank is and said plurality of blanks are conveyed by the feeder conveyor and ~~approaches~~ approach the carrier conveyor; and

a controller operably coupled to the servo motor and the blank detector to increase the feeder conveyor from the first velocity to the second velocity in response to the blank detector detecting the position of said given blank and to decrease the feeder conveyor from the second velocity to the first velocity after a predetermined period of time has elapsed.

17. (original) The apparatus of claim 16, further comprising a user interface for receiving data indicative of the first velocity, the second velocity and a blank length.

18. (original) The apparatus of claim 16 wherein said blank detector is a photodetector.

19. (original) The apparatus of claim 18 wherein said photodetector is positioned to detect a leading edge of said given blank.

20. (original) The apparatus of claim 16 wherein said carrier conveyor comprises a pair of belts each having a receiving end and a discharge end and said nip point is at the receiving ends of, and between, said pair of belts.